Mar 31st, 4:00 PM - 5:00 PM

The role of island-marsh couplings in the long-term sustainability barrier islands in the face of accelerated sea-level rise

Christopher Hein
Virginia Institute of Marine Science

MONTCLAIR STATE UNIVERSITY

The Doctoral Program in Environmental Science & Management and MSU Sustainability Seminar Series Present:

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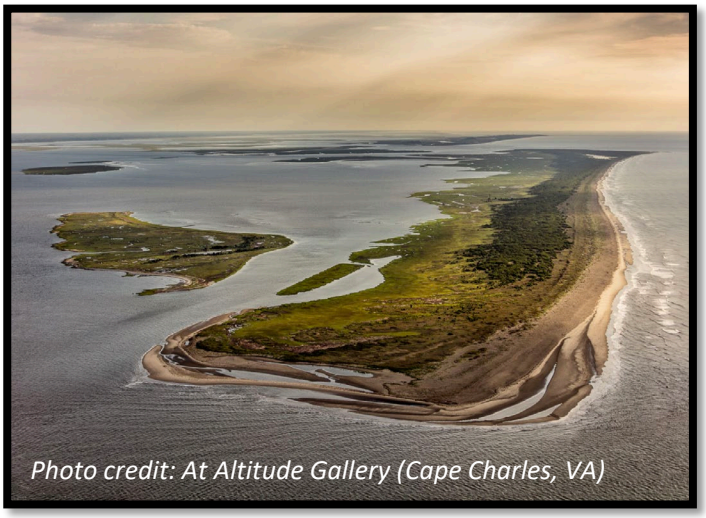

Photo credit: At Altitude Gallery (Cape Charles, VA)

Christopher Hein (Ph.D., Boston University, 2012) is an associate professor in the VIMS Department of Physical Sciences. Chris applies the tools of sedimentology & organic chemistry to investigate sediment-supply driven coastal evolution & past climatic variability in diverse coastal settings—including barrier islands across the US East Coast—with a goal of using this link to forecast future responses to regional climate changes.

Barrier islands are one of the most ubiquitous features of the coast . . . at least here along the US East Coast, which accounts for >10% of the world's barrier islands. Little more than large, partially vegetated, subaerial sand bars, barrier island provide for recreation, ecosystem services, and protection of mainland communities from storm impacts. They are also some of the most ***dynamic*** features on earth, constantly changing in the face of waves, tides, wind, and currents. With examples from northern Massachusetts and the Virginia Eastern Shore, this talk will focus on the long-term sustainability of barrier islands, and how they interact with their backbarrier lagoons and marshes as they are reshaped and forced landward by these coastal forces in response to accelerated sea-level rise.

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